

Amendments to the Claims:Claim 1 (original):

A method of determining patient compliance in taking a medication, comprising providing to the patient a combination of a medication and a detectable marker, the combination to be taken by the patient as a result of the patient's own actions, obtaining a sample of the patient's gaseous exhaled breath; and analyzing the sample of the patient's breath to confirm the presence or absence of said marker in the patient's breath as an indication of patient compliance or non-compliance in taking the medication; wherein the medication is to be taken by volitional patient action at specified times.

Claim 2 (original):

The method of claim 1 wherein the medication itself comprises said detectable marker.

Claim 3 (original):

The method of claim 1 wherein the marker is an odorous substance.

Claim 4 (currently amended):

The method of claim 3 wherein the sample of the patient's breath is analyzed to confirm the presence of said marker by sensor technology selected from the group consisting of semiconductor gas sensor technology[[,]] and conductive polymer gas sensor technology, ~~or surface acoustic wave gas sensor technology.~~

Claim 5 (original):

The method of claim 4 wherein the sensor technology produces a unique electronic fingerprint to characterize the marker such that the presence and concentration of the marker is determined.

Claim 6 (original):

The method of claim 1 wherein the marker is a flavor ingredient selected from trans-Anethole (1-methoxy-4-propenyl benzene) - anise; Benzaldehyde (benzoic aldehyde) - bitter almond; Butyl isobutyrate (n-butyl 2, methyl propanoate) - pineapple; Cinnamaldehyde (3-phenylpropenal) - cinnamon; Citral (2-trans-3, 7-dimethyl-2, 6-octadiene-1-al) - citrus; Menthol (1-methyl-4-isopropylcyclohexane-3-ol) - menthol; and alpha-Pinene (2, 6, 6-trimethylbicyclo-(3,1,1)-2-heptene) - pine.

Claim 7 (original):

The method of claim 1 wherein the sample of the patient's breath is analyzed to confirm the presence of said marker by a spectrophotometer.

Claim 8 (original):

The method of claim 1 wherein the sample of the patient's breath is analyzed to confirm the presence of said marker by mass spectrometer.

Claim 9 (original):

The method of claim 1 wherein the marker is an additive combined with the medication.

Claim 10 (original):

The method of claim 1 wherein the marker is a coating on the medication.

Claim 11 (original):

The method of claim 10 wherein a substance to stimulate salivation is included with the marker.

Claim 12 (original):

The method of claim 1 wherein the marker is included with a liquid medication.

Claim 13 (original):

The method of claim 1 wherein the marker is included with a pulmonary delivered medication.

Claim 14 (original):

The method of claim 1 wherein the marker is included with an intranasal delivered medication.

Claim 15 (original):

The method of claim 1 wherein the marker is included with intravenously delivered medication.

Claim 16 (original):

The method of claim 1 further comprising the step of recording data resulting from analysis of the sample of the patient's breath.

Claim 17 (original):

The method of claim 1 further comprising the step of transmitting data resulting from the analysis of the sample of the patient's breath.

Claim 18 (original):

The method of claim 1 where the analysis of the sample of the patient's breath includes comparing the marker sensed in the sample of the patient's breath with a predetermined signature profile of a specific marker.

Claim 19 (original):

The method of claim 18 wherein the predetermined signature profile of a specific marker is associated with a specific drug.

Claim 20 (original):

The method of claim 18 wherein the predetermined signature profile of a specific marker is associated with a class of drugs.

Claim 21 (original):

The method of claim 1 further comprising the step of capturing the sample of the patient's breath in a vessel prior to analysis.

Claim 22 (original):

The method of claim 1 further comprising the step of dehumidifying the sample of the patient's breath prior to analysis.

Claim 23 (original):

The method of claim 1 wherein the marker first reacts with enzymes in the patient's mouth to be detectable.

Claim 24 (original):

The method of claim 1 wherein the marker first reacts with acids in the patient's stomach to be detectable.

Claim 25 (original):

The method of claim 1 wherein the marker is absorbed in the patient's gastrointestinal tract and excreted in the lungs.

Claim 26 (original):

The method of claim 1 wherein the data resulting from analysis of the sample of the patient's breath includes marker concentration and, thus, medication concentration.

Claim 27 (original):

The method of claim 1 further comprising the step of identifying a baseline marker spectrum for the patient prior to the patient's taking of the medication.

Claim 28 (original):

The method of claim 1 wherein said analysis further includes detecting exhalation of the patient's breath with a sensor.

Claim 29 (original):

A method of producing medication which is detectable as an indication of patient compliance in taking the medication comprising the steps of:

identifying a marker substance detectable in gaseous exhaled breath, and

producing a medication combined with said detectable marker substance, said medication to be taken by volitional patient action at specified times whereby subsequent analysis of the patient's breath will confirm the presence of said marker substance and thus the patient's compliance in taking said medication.

Claim 30 (original):

The method of claim 1 wherein the marker is included with transdermally delivered medication.